

Kahn

p. 143: If I had to predict what was going to happen I would probably conjecture that we will procure a "finite or Minimum Deterrence" offense force and a completely inadequate active and passive defense while the Russians will presumably pursue something between Counterforce Insurance and Credible First Strike so that the actual situation may become very asymmetrical indeed."

468: Figure 7 shows that an attack with 200 missiles of .6 single-shot kill probability against a 50-point target system would result in an expected survival of 1 point target. "In 1961 it is quite probable that the Soviets will have hundreds of missiles, ~~so~~ so the only question will be what is the single-shot probability of these missiles, how much of SAC is in the air, and will that portion of SAC on 15-minute ~~xxxx~~ ground alert receive adequate warning."

311. World War V in 1961 is characterized by the slogan: "potential failure of Type I Deterrence."

The same prediction underlies the slogans accompanying World War VI: 1965: "prematurity of minimum deterrence; possibility of Soviet Union's strategic superiority"; because the likelihood of superiority on the part of the Russians means that US could not use, e.g., retaliation in kind to deter extreme provocations (and thus would be caught by the lack of a First-strike Capability).

"Even if the Soviets do not attack, our negotiators are likely to be so fearful of provoking them that Soviet negotiators will be able to achieve most of what they want by diplomatic means, simply because we do not have adequate Type I deterrence." (1961--).

If the Su has developed its capability "to put its population in a place of safety on 24-48 hours notice" and we have not, the US must then be prepared "at the choice of the SU, to face an erosion of its position, an erosion much more precipitous and dangerous than any which is achieved by a series of successful ambiguous challenges. Soviet challenges thus need not be ambiguous." 473

"the situation need not be so asymmetrical or dangerous if we or both sides do in fact have some credible first-strike capability (including at least modest civil defense programs)..." 473 Never mentions possibility of symmetry in which neither side had credible first-strike capability; both had good Type I deterrence.

World War VII is associated with "the possibility of reliable finite deterrence"; this possibility is not admitted to arise until 1969.

537: "On the basis of current programs, I have predicted that we will lose our Type II deterrence by hypothetical World War V (1961). We will lose it in 1961 because we have not bought enough of the right kinds of offensive forces; we have neglected instituting even a cheap civil defense program; and we have not been vigorous enough in fixing the holes in our air defense system. ...

"I find it somehow very hard to believe that our reliance on self-restraint by the Soviets will continue to work, particularly since I suspect the Russians will asymmetrically buy a capability to win and terminate wars, while we will try to depend on some form of a minimum Type I deterrent plus inadequate limited war forces." (>)

"If we have procured only a minimum deterrent, it will be unsafe for us to strain our Type I deterrence by initiating or threatening to initiate extremely "provocative" acts. That tactic will be open only to the Soviets. ...A vigorous "limited" defense by us of the position that the Soviets believe they are entitled to may be looked upon by them and even by us as an extreme provocation; without an adequate Type I deterrent it would prove dangerous even to try such a defense. Even a residual Type II deterrent could be destabilizing."

Moreover, whatever one's beliefs in this matter, one must consider a condition of vulnerability, especially unnecessary vulnerability, to be intolerable. No reasonable man would argue that we should leave the matter of the survival of at least our strategic air power in the hands of the Soviet Union. p. 4 ((Better question follows)): Is the likelihood of a Soviet attack so low and the cost of protection so great that we can rationally choose to allow a situation to develop in which our retaliatory power is vulnerable? p. 5

Enthoven's conclusions are also qualified by carefully-stated conditions:

It will be possible for the SU, at what may well be a tolerable level of risk, to attack and effectively destroy our retaliatory power, if it chooses to procure a striking force well within the level of current Soviet military budgets and technology, and of a size and performance equal to or less than that now predicted by official intelligence estimates.

Or: The fundamental conclusion of this study is that given present plans and programs, it will be possible in the early 1960's for the Soviet Union, at what may be a tolerable level of risk, to attack and effectively destroy our retaliatory power if it chooses to procure striking forces well within the level of current Soviet military budgets and technology, and of a size and performance equal to or less than now predicted by official intelligence estimates.

His study supports this conditional statement; and his recommendations that the amount of money necessary to remove this condition should be spent seems very convincing.

The forces referred to include 320-410 Soviet ICBM's, for 1963.

Two attacks considered for 1961 and 1962 assume 316-404, ICBM's in 1961 and 323-410 in 1962 (the number of ICBM's in 1961 is admitted to be above the number estimated by intelligence; no explanation given as to why the general rule of sticking to intelligence estimates is violated in this case, although it is stated that the Soviets could launch a similar attack with fewer missiles without making a very great sacrifice in US forces destroyed; this suggests, like other statements, an implicit judgement by author on likely SU missile forces in 1961).

The fact that estimates are within intelligence estimates certifies them to be "reasonable." Moreover, the author indicates that he regards them to be "right":

even on assumptions favorable to ourselves and unfavorable to the Soviets, the SU will be able to destroy most of our retaliatory power with a strategic force of moderate size, and of a size one would expect it to possess. 38

our ability to retaliate effectively will very probably be inadequate even in periods of tension or international crisis. 3 (*italics*)

((this doesn't contradict his main point: we should provide insurance against unforeseen contingencies. The stakes are so large, and the costs of insurance so small by comparison, that it would be reckless not to do so. 102))

our strategic air power is vulnerable, and ...it could be destroyed by a Soviet force of surprisingly small size and modest performance capabilities. p. 1

~~xxx~~ ...the notion is widespread that the Russians would never attack us deliberately. In part, this view depends on a question of fact: the expected military outcome and the likelihood of success if the Russians were to attack. Too often the judgment that for planning purposes a deliberate Soviet attack is to be ruled out is based on the implicit--and incorrect--hypothesis that as a factual matter we are not really vulnerable. To be sure, an assessment of the danger of a Russian attack in any given set of circumstances must depend on a complex of considerations not all military and must, in the end, be a matter for personal judgment. However, the likelihood that they would attack certainly will be influenced by, and may depend to a very great extent on, the expected military outcome, and this is especially quantifiable. I ((BASIC RAND AXIOM)): If we are objectively vulnerable, if the postures of both sides are such that the Soviets could, in fact, attack us with high confidence of destroying our power to retaliate, then the likelihood that they will attack will surely be greater than if we were not vulnerable.

Wohlstetter: Delicate Balance

The balance, I believe, is in fact precarious, and this fact has critical implications for policy. p. 211.

~~The consequence~~ I emphasize that requirements for deterrence are stringent. 211

Deterrence, however, is not automatic. While feasible, it will be much harder to achieve in the 1960's than is generally believed. 212

To deter an attack means being able to strike back in spite of it. It means, in other words, a capability to strike second. 213 ((It doesn't mean this; it may require it)).

The most important conclusion is that we must expect a vast increase in the weight of attack which the Soviets can deliver with little warning, and the growth of a significant Russian capability for an essentially warningless attack. As a result, strategic deterrence, while feasible, will be extremely difficult to achieve, and at critical junctures in the 1960's, we may not have the power to deter attack. 217

The job of deterring rational attack by guaranteeing great damage to an aggressor... 221

What can be said, then, as to whether general war is unlikely? 222 ((Doesn't answer; implies only that deterrence could be unstable "if they make sensible strategic choices and we do not." How likely is that? --and if the Russians would not be deterred by prospective casualties on World War II levels.)) "Would not a general thermonuclear war mean 'extinction' for the aggressor as well as the defender? 'Extinction' is a state that badly needs analysis. Russian casualties in World War II were more than 20,000,000. Yet Russia recovered extremely well from this catastrophe. There are several quite plausible circumstances in the future when the Russians might be quite confident of being able to limit damage to considerably less than this number--if they make sensible strategic choices and we do not. On the other hand, the risks of not striking might at some juncture appear very great to the Soviets, involving, for example, disastrous defeat in peripheral war, loss of key satellites with danger of revolt spreading--possibly to Russia itself--or fear of an attack by ourselves. Then, striking first, by surprise, would be the sensible choice for them, and from their point of view the smaller risk.

It should be clear that it is not fruitful to talk about the likelihood of general war without specifying the range of alternatives that are pressing on the aggressor and the strategic postures of both the Soviet bloc and the West. Deterrence is a matter of comparative risks. The balance is not automatic. First, since thermonuclear weapons give an enormous advantage to the aggressor, it takes great ingenuity and realism at any given level of nuclear technology to devise a stable equilibrium. And second, this technology itself is changing with fantastic speed. Deterrence will require an urgent and continuing effort." 222

Up to now I have talked mainly about the problem of deterring general war, of making it improbable that an act of war will be undertaken deliberately, with a clear understanding of the consequences, that is, rationally. That such deterrence will not be easy to maintain in the 1960's simply expresses the proposition that a surprise thermonuclear attack might not be an irrational or insane act on the part of the aggressor. A deterrent strategy is aimed at a rational enemy. Without a deterrent, general war is likely. With it, however, war might still occur. 231

((Implies a prediction on Soviet force size, minimum; may be interpreted as saying, "Without the objective capability described here, general war is likely."))

Not all danger comes from tension. To be tense where there is danger is only rational.

234 ((How big is the danger?))

two principal points: First, deterring general war in both the early and late 1960's will

Delicate Balance: 2

be hard at best, and hardest both for ourselves and our allies wherever we use forces based near the enemy.

Second, even if we can deter general war by a strenuous and continuing effort... 234

(making the correct decisions))...above all, they entail a new image of ourselves in a world of persistent danger. 234

((Deterring an attack by actual SU forces is not that hard, and the world is not that dangerous; deterrence is not necessarily harder to achieve in the 1960's than generally believed; balance not very precarious...))

RAND assumptions; (a) great ignorance about SU capabilities and intentions, both at RAND and in White House; (b) impossible to achieve much information; (c) value of information would be small, ~~in that~~ compared to "sensible" strategy based on sensible, conservative systems analysis in the presence of extreme uncertainty; assumption that enemy posture corresponds to that RAND would choose for the Soviets--knowing US program--will ~~give results~~ lead to choices with results that could not be much improved upon by knowing actual SU strategy; and in fact, is probably quite close to the truth; (d) non-RAND complacency reflects inappropriate systems analysis in presence of uncertainty, great emphasis on wishful ~~or~~ cases, little attention to "Soviet-preferred" strategies ((often incontrovertible evidence of wishfulness, and ignorance of game-theoretical approach, when these non-RAND types were known to be ignorant; on assumption that they were in all cases as ignorant as RAND, their "favorable" assumptions would still appear to be similarly wishful.))

Moral: 1) RAND ignorance/uncertainty may be greater than the government's.

2) It may be easier, or more feasible, to get more information, reduce uncertainty, than RAND has supposed; search strategies may be more relevant as possibilities.

(3) The information can make a much bigger difference than RAND tended to assume; the range of strategies that the enemy may be found to be employing is much larger, and includes more further from "optimal" than RAND would have imagined; RAND assumptions on what a free-thinking Soviet planner would regard as "optimal" may be much further than RAND imagined from actual Soviet programming (in fact, it may be very far from what a Soviet would regard as optimal; see Pearl Harbor, Hitler); and the outcome to a given strategy can be very different ~~from~~ in the actual circumstances from what it would have been for a RAND-preferred Soviet strategy, in fact, the ordering of actions will be quite different; hence, the weight that should be given to the "best guess" and the "optimal Soviet" (RAND-preferred) program will have a critical effect on RAND recommendations. And RAND has given much too much weight to the "optimal" or RAND-preferred Soviet strategies, ~~rather~~ than to the Soviet-preferred Soviet strategies, without trying to discover the latter.

As I argued in The Reluctant Duellist, the game-theoretical approach which assumes that the opponent will be found to be playing an "optimal" minimax strategy underestimates the value of Intelligence; the possibility that he will be found to be playing something else means that some other strategy may offer a much more attractive prospect than maximin; hence the value of the game is higher than the maximin value.

Gradual consolidation of RAND-preferred ~~Soviet~~ estimates of Soviet program, to support previous and current RAND recommendations. Assumption that it is under all conditions "safe," "prudent," to put maximum emphasis on "Soviet optimal" program as opposed to "intelligence guess" on Soviet program (and moreover, that it is not only prudent but probably closer to actuality than the CIA estimate).

((Possibly there is a tendency to be wishful when faced with real uncertainty; but that uncertainty at high levels is less frequent than RAND believed; and is counterbalanced by RAND-like tendencies, e.g., at time of Pearl Harbor, or in estimates of German capabilities.

Wohlstetter:

Insurance costs: the costs of such a program would amount to approximately 5% of the presently planned expenditures for SAC and SAC defense...RAND found that at every level of budget and force size studied, it is vital to spend about 5% to ensure the survival of a significant part of the force after enemy attack.

We have, in this study, taken pains to attribute to the enemy at most only those powers granted to him by intelligence estimates, and in general, considerably fewer.

((NOTE: says RAND has estimated the vulnerability of our strike "conservatively" by: using reasonable-to-low estimates of Russian capabilities, considering total US retaliatory force, using deliberately ~~optimistic~~ optimistic estimates of US capabilities, assuming willing on part of US to accept some reasonable risks. "Conservatively" here is contrasted to "alarmist" (which might be the result of "more caution than we can afford"); it implies "having lowest implications for US requirements," entailing lowest urgency of changing US posture from status-quo program.))

1961 attack: 500 Bears and Bisons.

((--we might have indications of attack: The real question, however, is not only how early we will have these signals but how unambiguous they will be. We can state, unequivocally, that they will be equivocal...The ambiguity of strategic warning complicates the problem of decision. What actions are feasible on the basis of equivocal warning? They will depend on the degree of equivocality and on the probable frequency of false alarms. They will also depend on the gravity of the actions we might take, that is, on the cost of these actions to us. The decision to send our bombers on strike, or to launch our missiles, is the decision to wage World War III. As many studies of the problem of air defense of the United States have shown, this is very likely to involve enormous costs in terms of US lives. We can hardly afford a mistaken reaction here. It should be plain, therefore, that we cannot plan on receiving strategic warning unequivocal enough to effect a U.S. war decision in advance of enemy attack. 19

((What is the likelihood of receiving ~~xxx~~ warning such that the probability of attack is greater than the President's critical risk for launching missiles?))

If the enemy ~~is~~ intelligent in~~x~~ designing his strikes--and, in our planning, we must assume that he will be--he will do SAC as much harm as he can.

((This need not be the only planning contingency, or even the main one. You can never assume that planning for one contingency, no matter how selected or defined, will give optimal results or even adequate results for another contingency, without specific inspection.))

AFCIN estimate: ICBM in series production by 1960 or 1961; may have a CEP as low as 2 nautical miles but more likely 5 nautical miles or greater; assumed 1 MT by 1960.

1961 attack: 250 ICBM's. (5 mile CEP, 1 MT). p. 25 the "expected early threat" With 1 or 5 MT warhead with 2 mile CEP, need less than 100 missiles.

? ((Wishfulness: The limits that we have optimistically put on enemy offense routes and tactics unfortunately appear to be associated with our own weaknesses in defense and not with the enemy's capabilities for offense. If we assume that he will not exceed these limits, it is not because he cannot--but perhaps because the consequences are too unpleasant to contemplate. 29 fn: Of course, it is quite possible that the enemy will level his attack against our strong points. To quote Admiral de Robeck at Gallipoli: "Gallant fellows, these soldiers; they also go for the thickest place in the fence." On the other hand, we cannot count on such gallantry.

Precisely because this matter affects the root problem of national defense--the deterrence of general war--it is difficult to avoid a certain amount of wishfulness and lack of realism in its treatment. ..(consider) a sensible, uncooperative enemy.

W

The attacks described here, and many others studied, clearly indicate the present vulnerability of our strike force. They do not, of course, imply that a Russian attack is imminent. Nor do we think it is. That is a matter of Soviet intention rather than Soviet capability, and such intent would be affected in the first instance ~~of~~ by Soviet knowledge of our vulnerability and in the second place by the comparative gains and risks of alternatives to central war. Nonetheless it is a painful fact that the risks to the Soviets of attempting a surprise attack on the United States are much lower than are generally estimated. We would like this course of Soviet action to be a worse alternative to almost any other they might contemplate—including, for example, the acceptance of defeat in some limited or peripheral war.

Attack using 500 missiles, to study radiation levels.

1961 attack: 300 bombers; or 300 bombers plus 250 ICBM's. (300 Bears). 89-90
(follow-up with 500 heavy and medium bombers). If the enemy missile force is as large as 500...

Finally, cost of four systems "in the face of moderately high though not extreme Soviet offensive and defensive capabilities"; 500 ~~XX~~ ICBM's and 500 Bears and Bisons. Recommended system does best.

What if the SU has a poorer capability than that used in the preceding comparison, and a smaller level of destruction is enough to deter general war?

In the comparisons shown in Fig....a Soviet offensive force only a little more than half that in the preceding comparison is assumed (250 ICBM's and 300 Bears).

Our ignorance does not create uncertainty in the enemy's mind. Even though we do not ~~XX~~, he will know whether he has 500 Bears and Bisons rather than 300, and 500 ICBM's rather than 250. It would be foolhardy to be optimistic here just because we do not know.

Axiom: It would be wrong to suppose that the enemy will take no risks. He is sometimes presented with a choice among risks. It is impossible to fix the exact level of retaliatory capability that we must be able to keep intact in the face of surprise attack... ((BUT CAN A CEILING BE FIXED?))...But our strategic force as it is planned now, even given the low and uncertain estimates of enemy capabilities, cannot ensure a level of destruction as high as that which Russia sustained in World War II--a destruction from which it has more than recovered in a few years. This is hardly the "crystal clear" deterrent we might need in some foreseeable circumstances.

It has been widely recognized that deterrence of general war requires an invulnerable power to retaliate. However, RAND's study shows that in fact there will be no adequate objective basis for deterrence unless U.S. defense programs and plans are drastically altered...sensibly planned surprise attacks could prevent us from mounting a sizeable retaliatory strike. p. 1

Can we mount a substantial retaliatory blow after a surprise thermonuclear attack? If not, have we a deterrent?

Q. AW:

- 2) - Contrast what happened, 1958-64
(MM decision - late '61... testing)
with what might have happened,
with negots and/or technical
deployment...
(or: with MIRV
" ARM flying ("SU" or US)
:LADS

(b) Look at significance of "briefly wrong"
ent of (as of 1958-61) of the 1959-65
period.

c) Look at interaction of: "No first use";
First-use, first-strike: capabilities.

d) Look at limited instruments - PAC;
Authorization (by instrument?); Plans (?)
USA POP AT-RISK.

(e) Americans in US (+SU?) TAC NUCS.

(f) NUC PRODUCTION? WASTE?
(No notes of AW.)

actual
(f) Underestimate NO LONGER MATTERED
after 1961!

(US force was TOO LARGE ANYWAY.)

(g) ASW ignores ~~(USPACAF)~~ ⁷ 1950's, ~~and~~ 1961, and
1969-76!

and ^{SC} ARMY, MIRV, Chassis SS-9

"SC first-strike"

(h) Like Alsop: simple notions of
Invasion, Probes, Security,
"Possibility" of War...

#20,177

("It's only money")

Plans, C&C, Auth, no-PAC, Air assets,
deployment, dispersal plans (Cue II),

(i) Effect of VN on threat spending!
+ budget!